



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

VERIFICATION OF THE HABITAT OF CONRAD'S MYTILUS BIFURCATUS.

BY ROBERT E. C. STEARNS.

In the late Dr. Philip Carpenter's Report to the British Association (1856) on the Mollusca of the West Coast of North America, paragraph 39, occur these words :

"During the years 1834-5, Thomas Nuttall, Esq., for many years Professor of Natural History at Harvard University, Cambridge, U. S., visited the then almost unsearched shores of California, by a journey across the Rocky Mountains, under the escort of a trading company. Although his object was principally botanical, his love of natural science induced him to collect all the shells he could meet with ; and with such good success, that many of his species have not to this day been again discovered. The peculiar interest attaching to his researches is, that he did not visit any part of the coast north of Oregon or south of San Diego. There is no danger, therefore, of any admixture with the shells of the Gulf district ; and his collections may be regarded as the type of the Californian fauna strictly so-called. Leaving the American shores, Mr. Nuttall visited the Sandwich Islands, whence he only brought one species belonging to the American fauna, viz., *Hipponyx Grayanus*, on a *Pinna*.

"On his return to the United States, *via* Cape Horn, the description of the marine shells was undertaken by Mr. T. A. Conrad, and the land and fresh-water species by Mr. Lea. The latter gentleman communicated his paper to the American Philosophical Society, where it will be found in the 'Transactions,' vol. vi ; Mr. Conrad read his paper before the Academy of Natural Sciences of Philadelphia, in January and February, 1837. It is published in the second part of the 'Journal' of the Society, vol. vii, pp. 227-268.

* * * * *

"The work bears the appearance of undue haste, * * * the localities cannot always be depended upon, * * * and the descriptions being in English would not have been entitled to claim precedence, were it not that they are accompanied by tolerably recognizable figures."¹

¹ Jour. Ac. N. S., v. 7, Pl. 18, f. 14. Sp. 2184, Jay's Cat., p. 77, 4th ed., 1852.

On page 109 of the same (1856) report of Carpenter's, he gives *Mytilus bifurcatus*, Conr., Jay, 2184, "Sandwich Is."—"on rocks, bare at low water—Conr."; and adds: "No knowledge of the locality of this shell exists, except the statement of Conrad, which alone is not binding, and its appearance among the Mexican War shells, the collectors of which brought home nothing from the Sandwich Islands."

On page 563, in paragraph 62, of Carpenter's second report (1863), in commenting on the species and figures in Reeve's "Conch. Ic.," he prints as follows: "41, *Mytilus bifurcatus*, Conr., J. A. N. S. Phil., Hab.? [Conr. assigns his Nuttallian species to California; but it is the common Sandwich Is. species, teste Pse. The Californian shell, with the same sculpture, is a *Septifer*, and is the *S. bifurcatus* of Mus. Cum.]"

So far as regards the Sandwich Islands form, at this moment I am without specimens for comparison, and am satisfied with Pease's identification as to close resemblance. While Conrad was very often somewhat careless in his work, in the case before us he was correct, and Carpenter's criticism in this instance was not deserved, as both *Septifer* and *Mytilus*, that is to say both Reeve's and Conrad's species, are found at San Diego, and an examination of numbers of specimens collected by different parties during the past ten years, shows that an examination of the *interior* of the valves is necessary in order to determine to which group specimens belong. I have been unable, after the most careful inspection, to find any external differences by which I could separate them.

The *Septifer* from the Gulf of California, in the Xantus collection No. 118 = 169 of the Mazatlan Catalogue, I am not familiar with, and would suggest its comparison with *S. bifurcatus*, but Carpenter's *Mytilus multiformis*, No. 117 of the Xantus list = 169 of the Mazatlan Catalogue, I should regard as the southern form of Conrad's *Mytilus bifurcatus*. Specimens of the two species are contained in my collection, in that of the Philadelphia Academy, and in the National Museum, Washington.